



## pistolgrip (buckhorn)

*Tritogonia verrucosa*

Kingdom: Animalia  
Division/Phylum: Mollusca  
Class: Bivalvia

### Features

The pistolgrip or buckhorn mussel has a thick, elongate, compressed shell that is green or light brown (dark brown or black in older shells). The edge of the shell on the hinged side is straight or slightly curved and the ventral (open) side of the shell is curved toward the hinge. The anterior end is rounded. The posterior end is squared in males, but rounded and elongated in females. The shell is covered with irregular bumps and there is a series of pronounced ridges on the posterior half. The inside of the shell is white and it is iridescent toward the posterior end. The pistolgrip may grow to eight inches long.

### Natural History

The pistolgrip is found in medium to large rivers in mud, sand, or gravel. It is endangered in Iowa. Its distribution in Iowa is not well documented. Freshwater mussels have an elaborate reproductive system. During spawning, males release sperm into the water. The sperm are drawn inside the female's shell, where they fertilize eggs in her body. The fertilized eggs develop into larvae (glochidia) and are stored for a time in the female's gills. When the

glochidia mature, the female generally expels them into the water where they must attach as parasites to the gills or fins of fish. Larvae remain on the host fish for a period of weeks or months. Young mussels then detach from their host and drop to the bottom of the body of water. Hosts for this mussel are not known. Mussels are filter-feeders, bringing in water and the organic matter it contains through the incurrent siphon, filtering the particles out, then sending the rest of the water away from the body through the excurrent siphon. Particles filtered include plankton and detritus. Mature mussels spend most of their lives, which range from 10 to 100 years, partially or wholly buried in the bottom substrate.

### Habitats

Mississippi River pools 9,10, 11, 16, and 17, interior rivers and streams

### Iowa Status

endangered; native

Siltation and other unknown water quality impacts from changing land use have greatly impacted mussel populations. Populations of some fish species which served as hosts for mussels have declined. The exotic zebra mussel greatly stresses remaining native mussels by covering their shells and competing for food.

### Iowa Range

Mississippi River and southeastern one-fourth of Iowa

### Bibliography

Iowa Department of Natural Resources. 2001.  
*Biodiversity of Iowa: Aquatic Habitats* CD-ROM.